

### **ABSTRACT**

A CDMA data transmission system and method for periodically allocating  
5 channels to subscriber units, wherein prior to the beginning of any period all active  
subscriber units are identified that are in communication with the transmitter and  
for which there are data, exceeding a given minimal quantity, stored in a buffer. For  
each active subscriber unit one or more priority factors are calculated as a function  
of associated power levels; and on the basis of the priority factors, at least one  
10 channel is allocated to a corresponding active subscriber unit. The channel  
allocation is repeated in respect of any active subscriber units to which no channels  
have yet been allocated, subject to an availability of unallocated channels and  
subject to a limitation of maximum transmitter power.